



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

The character of the above cited publications is sufficiently indicated in the descriptive titles. They are in every respect creditable statistical performances.

JOHN CUMMINGS.

First Report of the Tenement House Department of the City of New York, January 1, 1902—July 1, 1903. 2 vols. 8vo, pp. vi + 426 and 480.

In many respects the difficulties of securing suitable habitations are greater in New York city than in any other city of the United States, and it had become a matter of life and death for the majority of the wage-earning population to secure improvement. Under Mayor Low a most competent administrator was chosen, an eminent lawyer and practical philanthropist, Mr. Robert W. de Forest, who associated with him a technical expert, Mr. Lawrence Veiller. The two stout volumes here briefly noticed record and interpret the results of this great enterprise of our largest city.

The report describes the organization of the municipal department charged with the duty of regulating the residences of the people; the charter and other legal foundations, the bureaus, the administrative regulations, the division of labor, the forms, the instructions to inspectors, with illustrations of methods and devices used in the investigations and actions for enforcement of the law. The maps, statistical tables, and photographic illustrations present the essential facts in all their bearings. This report is at once the record of a great reform, the monument of a triumph, a warning of the evil which will grow up in any city with neglect, and a guide to those who are wise and resolute to combat the first beginnings of evil.

C. R. HENDERSON.

A Geometrical Political Economy: Being an Elementary Treatise on the Method of Explaining Some of the Theories of Pure Economic Science by Means of Diagrams. By H. CUNYNGHAME. Oxford: The Clarendon Press, 1904. 12mo, pp. 128.

This little book is addressed to economists and not to mathematicians. According to the author (p. 127), "the chief function of mathematics as applied to economics is, not to solve problems, but to

help us to comprehend truths, which when we have comprehended we may discard the mathematics as we take down a scaffolding when the building is finished."

Chap. 1 contains a bibliography of books on this mode of treating political economy, supplementing the one in Jevons' *Theory of Political Economy* (3d ed., 1879).

Chap. 2 begins with a defense of mathematics against the prejudice which many students of economics feel. "Mathematical reasoning," says the author, "is only ordinary reasoning assisted by a shorthand mode of expression that enables a proposition to be put in a line and visible in one glance of the eye rather than spread over ten or twelve pages of print." The remainder of the chapter, as the title indicates, discusses geometrical diagrams. The fundamental notions of drawing to a scale and change of axes are introduced by means of simple examples; then the terms "axes of co-ordinates," "abscissa," "ordinate," "origin," are defined, and the methods of adding, subtracting, multiplying, and dividing curves are explained and illustrated. Curves are divided into two classes: those which group and present facts, and those which represent laws; the latter are the ones dealt with in this treatise.

In chaps. 3 and 4 some of the well-known characteristics of demand curves are developed in a simple manner; it is brought out that they are descending curves, that they always cut a rectangular hyperbola negatively, and that they are curves of final utility prices. In chap. 5 the three types of supply curves — commodities falling under the laws of diminishing, constant, and increasing returns — are explained and illustrated.

Chaps. 6–10 are devoted chiefly to applications of the principles and methods previously developed. According to most texts, the area bounded by the axis of ordinates, a supply curve, and a demand curve represents the consumer's quasi-rent and the producer's quasi-rent. The opinion of the author that this is not correct except in a limited number of cases is open to the following criticism: With a small supply of a commodity a marginal item will have a certain utility u , and he asserts that with a doubling of the supply the utility of the original item may or may not be u , and therefore the consumer's surplus upon that item is not to be assumed to be the difference between u and the new price. This is worked out, however, upon the basis that by virtue of the increased supply the commodity has

become incapable of ministering to some of the needs to which it ministered before (for example, to the desire for prestige). But this is to say, since not all of the same needs are satisfied, the utility has fallen because we have, in substance, a different commodity.

In chap. 11 the author explains "Marshall's curves." The applications which are made, however, go beyond those of the inventor. These curves were introduced for the purpose of eliminating the money standard in comparing two articles. Instead of having abscissa and ordinate denote quantity and price per article, Marshall makes them denote total quantities exchanged. Thus if x and y denote abscissa and ordinate of a point on the price curve where x = quantity taken, y = price per article, the corresponding abscissa and ordinate on a Marshall curve would be x , and $m = xy$.

On p. 83, Fig. 41, two different points are denoted by the same letter S ; this should be changed to obviate confusion. On p. 2 curves are spoken of as those that obey some law and those that do not. From the general context of the book, and particularly from chap. 13, it seems that by a curve which obeys a law is meant an algebraic curve—i. e., the graph of an algebraic equation in two variables. On p. 7 it is stated that "mathematics is the science of quantity." In this connection Professor Bôcher, of Harvard University says: "The old idea that mathematics is the science of quantity . . . has pretty well passed away among those mathematicians who have given any thought to the question of what mathematics really is."¹

Although both economists and mathematicians will probably criticise certain details from their respective points of view, Mr. Cunyngname has, on the whole, succeeded very well in his attempt to show in an elementary manner how diagrams may be employed to aid in explaining some of the theories of pure economics.

SAUL EPSTEEN.

THE UNIVERSITY OF CHICAGO.

¹ "The Fundamental Conceptions and Methods of Mathematics." Address delivered before the Department of Arts and Science, St. Louis, September 20, 1904. Printed in the *Bulletin of the American Mathematical Society*, Vol. XI, No. 3 (December, 1904), pp. 115-35.